

### **REMARKS**

Claims 1-6, 8-14, 16-18 and 23 are currently pending in the subject application and are presently under consideration. Claims 1 and 18 have been amended as shown on pp. 2-5 of the Reply.

Applicants' representative thanks the Examiner's Supervisor for the courtesies extended during the teleconference of July 1, 2008.

Since the amended limitations merely emphasize subject matter as originally claimed, these limitations should already have been considered during an initial search in connection with the subject application. Pursuant to MPEP §714.13, applicants' representative submits that the amendments to these claims "only requires a cursory review by the Examiner" and thus, entry and consideration thereof is respectfully requested.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

#### **I. Rejection of Claim 1**

Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of US Patent No. 7,209,916. A terminal disclaimer in compliance with 37 C.F.R. §1.321(c) is submitted with this Reply, as such this rejection is moot and should be withdrawn.

#### **II. Rejection of Claims 1-5, 11-13 Under 35 U.S.C. §103(a)**

Claims 1-5, 11-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 6,745,180 B2, by Yamanoue, in view of US Patent No. 6,920,616 by Abbott *et al.* Applicants' representative respectfully requests that this rejection be withdrawn for at least the following reasons. Yamanoue and Abbott *et al.*, individually or in combination, fail to disclose all limitations of the claimed subject matter.

The claimed subject matter relates to an information agent system, application, and methodology. An information agent system provides the platform for executing information agent applications (IA). IA applications can then be programmed by end-users and employed as end-user executive assistants or agents. Agents can then act to greatly enhance end-user personal productivity, integrate desktop applications and all personal communication mediums (*e.g.*,

mobile phone, pager, PDA...).

Specifically, claim 1 recites a preference execution system, comprising: *a data store component for storing schematized data and end-user preferences; a compiler to compile information agent applications including end-user specified preferences and store the compiled information agent applications in the data store; an execution engine to retrieve preferences stored in the data store upon the occurrence of one or more events and to utilize the preferences and at least one stored procedure to query tables within the data store and produce a results table, wherein the results table stores preferences whose conditions have been satisfied such that specified actions are triggered based on the stored preferences; and a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making, the parameters comprise contextual information, such as the user's typical locations and attentional focus, activities per time of day and day of week, devices users tend to have access to in different locations, and a user's preference as to being disturbed by notifications of different types in different settings, which is assessed based on a cost of disruption associated with being notified, and the parameters also comprise functions of observations made autonomously via one or more sensors and dynamically inferred parameters, the parameters are stored as a user profile that can be edited by the user or users can specify in real-time their state.* The cited references fail to disclose such claimed aspects.

Yamanoue describes a data supply controlling device that comprises a data base for user data which stores user data matched with each user. The data base of user data can be queried in accordance with the user data so that a data server performs a search according to the query and stores the search results in a search result data base. User ID management can be performed for separately managing the identifying data to identify each user and user specifying data to specify each user. A search result matched with the identifying data of the user from the search results stored in the search result data base is provide for a user terminal. Once the user data is stored, it is not required to carry out further communications to input the user data. (See col. 2, lines 26-53).

In contrast, applicants' claimed subject matter discloses a system for preference evaluation. The system comprises a data store, a multitude of tables, a preference execution engine, a results table and a context analyzer. The context analyzer stores/analyzes information regarding variables and parameters of a user that influence notification decision-making. For

example, the parameters may include contextual information, such as the user's typical locations and attentional focus or activities per the time of day and the day of the week, and additional parameters conditioned on such parameters, such as the devices users tend to have access to in different locations. Such parameters may also be functions of observations made autonomously *via* one or more sensors. For example, one or more profiles may be selected or modified based on information about a user's location as can be provided by a global positioning system (GPS) subsystem, on information about the type of device being used and/or the pattern of usage of the device, and the last time a device of a particular type was accessed by the user. Furthermore, automated inference may also be employed, to dynamically infer parameters or states such as location and attention. The profile parameters may be stored as a user profile that can be edited by the user. Beyond relying on sets of predefined profiles or dynamic inference, the notification architecture can enable users to specify in real-time his or her state, such as the user not being available except for important notifications for the next "x" hours, or until a given time, for example.

The parameters can also include default notification preference parameters regarding a user's preference as to being disturbed by notifications of different types in different settings, which can be used as the basis from which to make notification decisions by the execution engine, and upon which a user can initiate changes. The parameters may include default parameters as to how the user wishes to be notified in different situations (*e.g.*, such as by cell phone, by pager). The parameters can include such assessments as the costs of disruption associated with being notified by different modes in different settings. This can include contextual parameters indicating the likelihoods that the user is in different locations, the likelihoods that different devices are available, and the likelihoods of his or her attentional status at a given time, as well as notification parameters indicating how the user desires to be notified at a given time. (*See* pg. 74, line 14-pg. 75, line 27).

Yamanoue merely discloses generating a query based on user data stored in a user data storage section and supplying data based on the query. Thus, a search result that is suitable to each user can be presented to the user. Yamanoue does not disclose utilizing a context analyzer to store/analyze information regarding variables and parameters of a user that influence notification decision-making.

Abbott *et al.* does not cure the deficiencies of Yamanoue. Abbott *et al.* discloses a software facility for exchanging information between sources of context data and consumers of context data. A characterization module operating in a wearable computer system receives context information, in the form of individual attributes each modeling an aspect of the wearable computer system, its use, or the surrounding environment, from one or more context servers, and provides it to one or more context clients. (See col. 3, lines 19-36).

As stated *supra*, applicants' claimed subject matter discloses a system for preference evaluation. The system comprises a context analyzer that stores/analyzes information regarding variables and parameters of a user that influence notification decision-making. For example, the parameters may include contextual information, such as the user's typical locations and attentional focus or activities per the time of day and the day of the week, and additional parameters conditioned on such parameters, such as the default notification preference parameters regarding a user's preference as to being disturbed by notifications of different types in different settings. The parameters may also include default parameters as to how the user wishes to be notified in different situations (*e.g.*, such as by cell phone, by pager). The parameters can include such assessments as the costs of disruption associated with being notified by different modes in different settings. (See pg. 74, line 14-pg. 75, line 27).

Abbott *et al.* merely discloses a software facility that receives context data in the form of individual attributes and provides it to one or more context clients. The software facility is executed on a body-mounted wearable computer. The computer acts as an intelligent assistant to the user and monitors the user and the environment and outputs data to remote devices in range of the computer. (See col. 6, lines 1-53). Abbott *et al.* does not disclose utilizing a context analyzer to store/analyze information regarding variables and parameters of a user that influence notification decision-making. Applicants' claimed system determines notification preference parameters regarding a user's preference as to being disturbed by notifications of different types in different settings. The parameters also include such assessments as the costs of disruption associated with being notified by different modes in different settings.

Accordingly, Abbott *et al.* is silent with respect to ... ***a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making, the parameters comprise contextual information, such as the user's typical locations and attentional focus, activities per time of day and day of week, devices users tend to***

*have access to in different locations, and a user's preference as to being disturbed by notifications of different types in different settings, which is assessed based on a cost of disruption associated with being notified, and the parameters also comprise functions of observations made autonomously via one or more sensors and dynamically inferred parameters, the parameters are stored as a user profile that can be edited by the user or users can specify in real-time their state.*

In view of the aforementioned deficiencies of the cited references, it is respectfully submitted that this rejection be withdrawn with respect to claims 1-5 and 11-13.

### **III. Rejection of Claims 6, 8, 9, 10 Under 35 U.S.C. §103(a)**

Claims 6, 8, 9, 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 6,745,180 B2, by Yamanoue, in view of US Patent No. 6,920,616 by Abbott *et al.*; further in view of US 2003/012136 A1 by Omoigui. It is respectfully submitted that this rejection should be withdrawn for the following reasons. Yamanoue, Abbott *et al.* and Omoigui, individually or in combination, do not teach or suggest each and every element set forth in the subject claims. In particular, Omoigui does not make up for the aforementioned deficiencies of Yamanoue and Abbott *et al.* with respect to independent claim 1 (which claims 6, 8, 9 and 10 depend there from). Thus, the claimed subject matter as recited in claims 6, 8, 9 and 10 is not obvious over the combination of Yamanoue, Abbott *et al.* and Omoigui, and withdrawal of this rejection is requested.

### **IV. Rejection of Claims 14, 16-17 Under 35 U.S.C. §103(a)**

Claims 14, 16-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over prior art of record, Knutson *et al.* (U.S. Patent No. 5,870,746); in view of US Patent No. 6,920,616 by Abbott *et al.* Applicants' representative respectfully requests that this rejection be withdrawn for at least the following reasons. Knutson *et al.* and Abbott *et al.*, individually or in combination, fail to disclose all limitations of the claimed subject matter.

As stated *supra*, the claimed subject matter relates to an information agent system, application, and methodology. An information agent system provides the platform for executing IA applications that can then be programmed by end-users and employed as end-user executive assistants or agents. Specifically, claim 14 recites a method for application installation

comprising: *establishing a set of base tables in a data store; storing program actions, conditions, events and procedures as data in the data store; updating the base tables with application data associated with an application being installed by retrieving program text from the data store and executing the program text, wherein the application employs user defined preferences via a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making.* Knutson *et al.* fails to disclose such claimed aspects.

Knutson *et al.* discloses a system and method for generating reports from a computer database. The system allows a user to segment and partition a database based upon attributes associated with the data in the database. (See col. 2, lines 20-25).

In contrast, applicants' claimed subject matter discloses a method for application installation wherein the application employs user defined preferences *via* a context analyzer. The context analyzer stores and analyzes information regarding variables and parameters of a user that influence notification decision-making. For example, the parameters may include contextual information, such as the user's typical locations and attentional focus or activities per the time of day and the day of the week, and additional parameters conditioned on such parameters, such as the devices users tend to have access to in different locations. Such parameters may also be functions of observations made autonomously *via* one or more sensors. (See pg. 74, line 14-pg. 75, line 27).

Knutson *et al.* merely discloses a method of segmenting a database based upon data attributes. The method includes an application program which allows a user to define predetermined data types, to define relationships between the data types, to define parameters for the report, to define a method of analysis for the report and to create the report.

Abbott *et al.* does not cure the deficiencies of Knutson *et al.* Abbott *et al.* discloses a software facility for exchanging information between sources of context data and consumers of context data. A characterization module operating in a wearable computer system receives context information, in the form of individual attributes each modeling an aspect of the wearable computer system, its use, or the surrounding environment, from one or more context servers, and provides it to one or more context clients. (See col. 3, lines 19-36).

As stated *supra*, applicants' claimed subject matter discloses a method for application installation wherein the application employs user defined preferences *via* a context analyzer.

The context analyzer stores/analyzes information regarding variables and parameters of a user that influence notification decision-making. For example, the parameters may include contextual information, such as the user's typical locations and attentional focus or activities per the time of day and the day of the week, and additional parameters conditioned on such parameters, such as the default notification preference parameters regarding a user's preference as to being disturbed by notifications of different types in different settings. The parameters may also include default parameters as to how the user wishes to be notified in different situations (*e.g.*, such as by cell phone, by pager). The parameters can include such assessments as the costs of disruption associated with being notified by different modes in different settings. (*See* pg. 74, line 14-pg. 75, line 27).

Abbott *et al.* merely discloses a software facility that receives context data in the form of individual attributes and provides it to one or more context clients. The software facility is executed on a body-mounted wearable computer. The computer acts as an intelligent assistant to the user and monitors the user and the environment and outputs data to remote devices in range of the computer. (*See* col. 6, lines 1-53). Abbott *et al.* does not disclose utilizing a context analyzer to store/analyze information regarding variables and parameters of a user that influence notification decision-making. Applicants' claimed method determines notification preference parameters regarding a user's preference as to being disturbed by notifications of different types in different settings. Accordingly, Abbott *et al.* is silent with respect to ... ***employing user defined preferences via a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making.***

In view of the aforementioned deficiencies of the cited references, it is respectfully submitted that this rejection be withdrawn with respect to claims 14 and 16-17.

**V. Rejection of Claims 18 and 23 Under 35 U.S.C. §103(a)**

Claims 18 and 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Yamanoue and Abbott *et al.* as applied to claim 1 above, and further in view of Bailey ("An Event-Condition-Action Language for XML"). It is respectfully submitted that this rejection should be withdrawn for the following reasons. Yamanoue, Abbott *et al.* and Bailey, individually or in combination, do not teach or suggest each and every element set forth in the subject claims.

Specifically, claim 18 recites a method for employing preferences comprising:...;  
*utilizing a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making, the parameters comprise contextual information, such as the user's typical locations and attentional focus, activities per time of day and day of week, devices users tend to have access to in different locations, and a user's preference as to being disturbed by notifications of different types in different settings, which is assessed based on a cost of disruption associated with being notified, and the parameters also comprise functions of observations made autonomously via one or more sensors and dynamically inferred parameters; and storing the parameters as a user profile that can be edited by the user or allowing users to specify in real-time their state;....*

As stated *supra*, Yamanoue describes a data supply controlling device that comprises a data base for user data which stores user data matched with each user. The data base of user data can be queried in accordance with the user data so that a data server performs a search according to the query and stores the search results in a search result data base. User ID management can be performed for separately managing the identifying data to identify each user and user specifying data to specify each user. A search result matched with the identifying data of the user from the search results stored in the search result data base is provide for a user terminal. Once the user data is stored, it is not required to carry out further communications to input the user data. (See col. 2, lines 26-53).

In contrast, applicants' claimed subject matter discloses a method for employing preferences. The method utilizes a context analyzer for storing and analyzing information regarding variables and parameters of a user that influence notification decision-making. For example, the parameters may include contextual information, such as the user's typical locations and attentional focus or activities per the time of day and the day of the week, and additional parameters conditioned on such parameters, such as the devices users tend to have access to in different locations. Such parameters may also be functions of observations made autonomously *via* one or more sensors. The profile parameters may be stored as a user profile that can be edited by the user. Beyond relying on sets of predefined profiles or dynamic inference, the notification architecture can enable users to specify in real-time his or her state. (See pg. 74, line 14-pg. 75, line 27).



Yamanoue merely discloses generating a query based on user data stored in a user data storage section and supplying data based on the query. Thus, a search result that is suitable to each user can be presented to the user. Yamanoue does not disclose utilizing a context analyzer to store/analyze information regarding variables and parameters of a user that influence notification decision-making.

Abbott *et al.* does not cure the deficiencies of Yamanoue. Abbott *et al.* discloses a software facility for exchanging information between sources of context data and consumers of context data. A characterization module operating in a wearable computer system receives context information, in the form of individual attributes each modeling an aspect of the wearable computer system, its use, or the surrounding environment, from one or more context servers, and provides it to one or more context clients. (See col. 3, lines 19-36).

Abbott *et al.* merely discloses a software facility that receives context data in the form of individual attributes and provides it to one or more context clients. The software facility is executed on a body-mounted wearable computer. The computer acts as an intelligent assistant to the user and monitors the user and the environment and outputs data to remote devices in range of the computer. (See col. 6, lines 1-53). Abbott *et al.* does not disclose utilizing a context analyzer to store/analyze information regarding variables and parameters of a user that influence notification decision-making. Applicants' claimed method determines notification preference parameters regarding a user's preference as to being disturbed by notifications of different types in different settings. The parameters also include such assessments as the costs of disruption associated with being notified by different modes in different settings.

Bailey does not make up for the aforementioned deficiencies of Yamanoue and Abbott *et al.* with respect to independent claim 18 (which claim 23 depends from). Bailey was cited by the Examiner for disclosing the use of on event if condition then action statements and the use of Boolean operators. (See Final Office Action dated 6-10-08, pg. 25). Thus, Bailey does not disclose utilizing a context analyzer to store/analyze information regarding variables and parameters of a user that influence notification decision-making. Accordingly, Bailey is also silent with respect to ... ***utilizing a context analyzer that stores and analyzes information regarding variables and parameters of a user that influence notification decision-making, ...; and storing the parameters as a user profile that can be edited by the user or allowing users to specify in real-time their state; ...***

Thus, the claimed subject matter as recited in claims 18 and 23 is not obvious over the combination of Yamanoue, Abbott *et al.* and Bailey, and withdrawal of this rejection is requested.

#### **CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP545US]

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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